

# Festival running on Solar Energy

 Energy. Anytime. Anywhere.

**A Festival running completely on Solar Energy, that was the main purpose of the Belgian organisation 'Solar zonder Grenzen', which organised the festival **Fiesta Solar**. Especially for this green event a mobile energy-supplier was developed: the **REN-Mobile (Renewable ENergy Mobile)**. The **REN-Mobile** is a truck equipped with a solar system. At the center of the system three **Quattro's** from **Victron Energy** are installed.**

The green festival Fiesta Solar, which took place on August 2010 in Belgium, was running completely on solar energy. The **REN-Mobile** provided enough energy to supply the needed electricity for the festival.

## **REN-Mobile**

The Belgian company Linea Trovata, specialized in sustainable energy solutions, developed the **REN-Mobile**. First the needed amount of energy for the light and sound was calculated. Based on this information the **REN-Mobile** was built. The truck is equipped with 40 solar panels, each with 0,3 kilowatt-peak. One of the experts of Linea Trovata calculated the amount of energy that can be generated with this system. *"With this installation 10 hours of electricity can be generated for 10 kilowatt-hour, this is a total of 100 kilowatt-hour."*

## **Solar Energy system**

The Belgian company **Ysebaert** and **Victron Energy** collaborated in the development of the energy system of the **REN-Mobile**. The system contains two battery sets with a capacity of 48V/1400 Ah and a total weight of four tons. The 40 solar panels are mounted on the roof of the truck.

The most important equipment of the system are three **Victron Quattro's** 48V 8kVA, connecting the solar panels, batteries and a back-up generator. The **Quattro's** are configured for three-phase output.

## **Energy Unlimited**

To get the maximum energy out of the batteries, the **REN-Mobile** was placed at the festival ground before the festival started. In the event of power shortage the back-up generator could be used as an emergency power back up.



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Photo 1: Three Victron Quatro's at the center of the solar energy system.



Foto 2: The system inside the REN-Mobile.

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**Photo 3: 40 solar panels at the roof of the REN-Mobile.**



**Photo 4: The three Quattro's are connected to the two enormous battery sets.**